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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/500,572  
Filing Date: July 01, 2004  
Appellant(s): SHIMADA, AKIHIRO

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Akihiro SHIMADA  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 12/31/2007 appealing from the Office action mailed 04/30/2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The amendment after final rejection filed on 7/25/2007 has not been entered.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,720,160	Traxler et al.	2-1998
5,814,908	Muszynski	9-1998
3,690,317	Millman	9-1972

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Traxler et al. in view of Muszynski.

Regarding claim 1, Traxler et al. disclose a magnetic bearing apparatus comprising: a rotatable rotary member (2.5 in Fig. 2) in which a radial magnetic bearing rotor (of radial magnetic bearing 2.2.1 and 2.2.2) and an axial magnetic bearing disc (of axial magnetic bearing 2.2.3) are secured to a rotary shaft; electromagnets that are arranged around said rotary member via a small gap; and a case housing them (Fig. 2), wherein said apparatus further comprises: cooling wind producing means for producing cooling wind of a low temperature and a cooling wind flow path through which the low-temperature cooling wind produced by said cooling wind producing means is to flow into

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said magnetic bearing apparatus (Col. 1, lines 44-55 and Col. 5, lines 43-48). Traxler et al. fail to show the cooling wind producing means for producing cooling wind of a low temperature with using a driving force of the rotary member.

However, Muszynski discloses an electric machine wherein the cooling wind producing means (100) for producing cooling wind of a low temperature with using a driving force of the rotary member (110) for the purpose of reducing noise cause by flow of ventilating air.

Since Traxler et al. and Muszynski are in the same field of endeavor, the purpose disclosed by Muszynski would have been recognized in the pertinent art of Traxler et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Traxler et al. by forming the cooling wind producing means for producing cooling wind of a low temperature by using driving force of the rotary member as taught by Muszynski for the purpose of reducing noise cause by flow of ventilating air.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Traxler et al. in view of Muszynski and further in view of Millman.

Regarding claim 2, Muszynski discloses the cooling wind producing means comprises: high-speed air flow producing means (100 in Fig. 1) for producing a high-speed air flow with using the driving force of said rotary member; converting means (130) for converting the high-speed air flow produced by said high-speed air flow producing means, to a vortex flow (Col. 3, lines 60-62); an air flow path through which the high-speed vortex flow converted by said converting means is to flow (Fig. 2).

Traxler et al. and Muszynski fail to show a control valve which is disposed on a side of said air flow path opposite to said converting means.

However, Millman discloses an apparatus having cooling structure using vortex flow (Col. 6, lines 65-68) comprising a control valve (59 in Fig. 1 and Col. 2, lines 45-50) which is disposed on a side of said air flow path opposite to said converting means for the purpose of varying the effective flow area (Col. 2, lines 51-53).

Since Traxler et al., Muszynski and Millman are in the same field of endeavor, the purpose disclosed by Millman would have been recognized in the pertinent art of Traxler et al. and Muszynski.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Traxler et al. and Muszynski by using a control valve which is disposed on a side of said air flow path opposite to said converting means as taught by Millman for the purpose of varying the effective flow area.

#### **(10) Response to Argument**

Regarding claim 1, Appellant's argument is on the ground that the references the Examiner relies on, Traxler et al. and Muszynski, fails to show "cooling wind producing means for producing cooling wind of a low temperature with using a driving force of said rotary member " because the claimed cooling wind producing means constitutes the magnetic bearing apparatus; the claimed rotary member also constitutes the magnetic bearing apparatus, the apparatus of Muszynski is an entirely separate mechanism for providing ventilating air into a housing of another machine. Combining Muszynski with

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Traxler et al. would simply produce a magnetic bearing apparatus with a separate apparatus for providing ventilation to said magnetic bearing apparatus.

The Examiner respectfully disagrees with the Appellant. The apparatus of Muszynski is not an entirely separate mechanism for providing ventilating air into a housing of another machine. The machine of Muszynski using the driving force of its rotary member (rotor hub) to cool the inside of the machine by mounting fan blades or fins to its rotary member (Figures 1-3 of Muszynski). Even the cooling wind producing means (including fan blades or fins) does not constitutes the magnetic bearing apparatus, it is obvious to use the cooling means of Muszynski in Traxer et al. because the Examiner does not try to incorporate two different machines into one new machine. The Examiner only uses the teaching of Muszynski to mount the cooling means (fan blades or fins) to the rotary member of magnetic bearing apparatus to produce wind.

Regarding claim 2, Appellant's argument is on the ground that the reference the Examiner relies on, Millman is nonanalogous art (directed to totally different technology area than that of the other applied reference).

The Examiner respectfully disagrees with the Appellant because it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the prior art reference (Millman) is reasonably pertinent to the particular problem with which

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the applicant was concerned because the control valve to control the flow speed of the wind is important in process of producing cooling winds. Moreover, the control valve of the present invention and the control valve of the prior art reference are all deal with fluid dynamic mechanics.

For the above reasons, it is believed that the rejections should be sustained.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

Hanh Nguyen Nguyen

February 24, 2008

/Nguyen N Hanh/

Examiner, Art Unit 2834

***Appeal Conference held on February 20, 2008***

Panel Participants:

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TQAS Appeal Specialist, TC 2800

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